



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## A MODEL MUNICIPAL DEPARTMENT.

### II.

#### II. INSPECTION AND CARE OF CONTAGIOUS DISEASES.

THE work of this division is carried on by several different bureaus, all under the general direction of the chief of the division.

*District medical inspection.*—For this purpose, as in the case of sanitary inspection, the whole city is divided into districts, with a medical inspector, who must always, of course, be a physician, in charge of each district. It is the duty of each medical inspector to visit every case of contagious or infectious disease within his district which has been reported to the department, and to make such visit on the day when he first receives notice of the case. Usually he interferes as little as possible with the work of the private physician, and accepts the latter's diagnosis; but should there be any doubt in the case of diphtheria, typhoid, and malarial fever, or other communicable disease, he must take a so-called culture. This culture is then forwarded the same day to the diagnosis laboratory of the department, and the result reported the following morning to the medical inspector. In the case of infectious diseases, such as smallpox, measles, chicken pox, etc., the inspector may call into consultation one of the department's special diagnosticians. Then, if the result of the culture and diagnosis reveals a case of contagious or communicable disease, the inspector immediately notifies the family in whose care the patient resides, places a warning placard on the front door of the house or apartment, giving the name of the disease, and takes all necessary measures to secure proper isolation until the patient is pronounced well and the house has been thoroughly disinfected by a regular officer of the department. Or, where the proper isolation is impossible, the inspector may so notify the diagnostician, and the latter has full power to order every

such case to be immediately transferred to one of the contagious-disease hospitals of the department.

Where the patient is not removed to the hospital, it is the duty of the medical inspector to make a visit at least once a week, or oftener if the patient is too poor to afford the services of a private physician, and to send in a daily report of his work to the department. Twice a week he must report in person to the division chief; during the other days, in order to save time, notices of cases are telephoned directly to him at his office, daily or oftener. If the case is that of a school child, the inspector must at once report its name, address, etc., by postal card to the proper school; and after the disease is over the child must obtain from him a duly signed certificate before it can return to school.

Naturally the work of the district medical inspector is one calling for great tact and much hard work. He must be all-careful not to interfere with the private doctor, and he must be willing to work long after hours if necessary. The writer went out with one inspector who made fifty-three inspections from 9 A. M. till 9 P. M.—one of the best records in the department. The following day, however, the same doctor had only seventeen inspections to make, and still another time only six inspections. This means, of course, that while the work is often heavy, it is also irregular, always falling off very much in summer. And this probably accounts for the comparatively high grade of men which the department is able to secure, in spite of the low salaries which it pays.

An interesting reform recently inaugurated by the present administration is the appointment of a special corps of men to distribute the antitoxin manufactured by the department. This is supplied free to diphtheria patients upon the request of the family physician, or where there is no private doctor.

Every private physician in the city is required by law to notify the Board of Health at once of any case of contagious disease which may come under his observation. All such cases, as well as those discovered by private citizens, public officials, or the medical inspector in his daily rounds, must always be reported to the Health Department. The Division of Contagious Dis-

eases keeps a full record<sup>1</sup> of the name, address, and general history, etc., of every case thus reported, besides assigning it at once for investigation to the proper district inspector. It also publishes a *daily* printed and classified list of all contagious diseases, and sends a copy of the same to the superintendent of every public and private school in the city, so that the school may take proper measures to exclude all infected or suspicious children, or those from the same family where the disease prevails.

In time of emergency or threatened epidemic the board is empowered to declare any section of the city to be a pestilential place, and therefore subject to the most rigid quarantine regulations, cutting it off from all communication with the rest of the city.<sup>2</sup>

The diagnosticians are men of especial fitness who receive an annual salary of \$1,800. They follow up the work of the district inspectors, and act as consulting physicians to the private doctor when the latter so requests. They also have the *sole* power to order any case of contagious disease which cannot be properly isolated in the house to be transferred to one of the city hospitals.

*Methods of vaccination and the stamping out of smallpox.*—For the purpose of carrying on systematic vaccinations and preventing any epidemic of smallpox, the city is again divided into districts, with a superintendent at the head of each district and a small corps of vaccinators, varying in number according to the needs of the city. Twice every day the members of each squad meet their leader at his office, or some other designated place, and are assigned their respective localities in which to work. Each district squad is itself divided into (1) a “day” squad, working steadily from 9 A. M. to 5 P. M., and (2) a “night” squad, working from 4 P. M. to 10 P. M. The “night” squad is always accompanied by a police officer, in order to increase the moral suasion of the vaccinators, and, so far as possible, an officer is also assigned with each “day” division. All the doc-

<sup>1</sup> The present administration has recently adopted a new form of filing envelopes, roomy enough to hold all the data of a case, and properly classified by the name of disease, residence of patient, etc.

<sup>2</sup> Secs. 1219 and 1220, *Revised Charter of 1901*.

tors in each squad must hand in written reports once a week to their district leader, besides reporting every Saturday morning in person to the assistant chief of the division. These reports show the number of vaccinations, the character of dwelling visited, its exact location, etc., and are properly filed. Each vaccinator is expected to do a full day's work, and his results are judged rather by the number of vaccinations secured than by the territory covered. There can be no compulsory vaccination under the laws of New York,<sup>1</sup> but the doctors are expected to use all possible tact and persuasion.

The whole city is thoroughly covered by this system; but, as it takes a very long time to make the rounds, the board adopts more speedy measures whenever a case of smallpox is reported or a general epidemic is threatened. If a single case be reported at any time, the working force of several districts may be concentrated, and two methods of procedure follow: (1) where the case occurs in the *middle* of a block, that block and the opposite one are thoroughly inspected, and where necessary every person residing therein is vaccinated, the patient being meanwhile moved as speedily as possible to the city smallpox hospital on North Brother Island; (2) where the case occurs at the corner of the block, all persons living within its limits and the three adjacent blocks may be vaccinated. These two methods may be illustrated as follows:

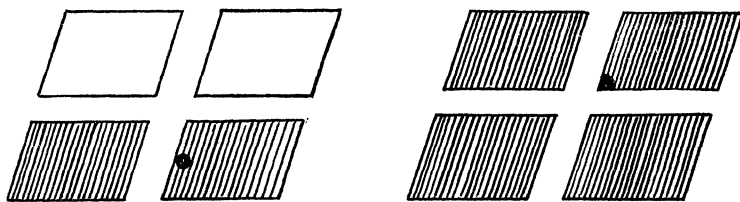


FIG. 1.

METHODS OF VACCINATION.

FIG. 2.

Black dot indicates location of smallpox case; shaded squares indicate city blocks vaccinated.

Each district superintendent supplies the doctors in his own squad with the necessary virus, implements, and so forth, which

<sup>1</sup>Except in the case of children attending school.

are furnished to him in turn by the department. In this way it has been found that much more thorough results are secured, and at a lower cost.

The general work of the Bureau of Vaccination divides itself naturally into four classes: (*a*) city jails; (*b*) city lodging-houses; (*c*) night vaccination of smallpox house or district; (*d*) office vaccination. That is, the jails of the city are visited regularly every day, as also is the city lodging-house, in order that each newcomer may be vaccinated. There is also an office squad to vaccinate free of charge all persons who come to the Health Department headquarters. Night vaccination is always resorted to where a case of smallpox is reported, as being the most sure means of covering the largest number of people, as well as in times of threatened epidemic.

Dr. Walter Bensil, former assistant chief of the Division of Contagious Diseases, was the originator of the present system of vaccination in New York city, and deserves much credit for its efficiency. The following features seem to be especially worthy of note, and might be adopted with success by many other large cities in the country:

*Chief features of the Bensil system of vaccination.*—(1) The "squad" system and method of reporting. By dividing the vaccinators into squads, under the direction of a superintendent, not only is more time saved than by the old system of reporting every morning to the Health Department, but also the work can be more thoroughly overseen and the whole city force concentrated in any locality at short notice. (2) More thorough and systematic work is obtained, the whole city being covered in a methodical manner and a careful record kept of the work done. (3) Prevention of waste material, and consequent saving in the cost of work, due to the giving out of vaccine and other supplies by the district superintendent, instead of each man getting it for himself in any quantity direct from headquarters.

If it be asked why the Bensil method of vaccination deserves such special mention, it may be answered most effectively by pointing out the results achieved under the present administration in stamping out the epidemic of smallpox which prevailed



And the figures for 1902 represent, also, the vaccinations actually performed, and not merely the fictitious numbers often reported in previous years; for the present administration rates its inspectors, not by the territory reported to have been covered, but by the exact number of persons vaccinated in a given time, due allowance, of course, being made for the difficulties in different localities.

The results of this campaign against smallpox were almost immediate, as can be seen by comparing the number of cases reported in the city during the different months of the last three years:

Months	1900	1901	1902
January .....	8	81	152
February .....	3	147	233
March.....	10	199	300
April .....	4	200	245
May .....	11	454	232
June .....	8	362	203
July.....	1	244	76
August .....	2	118	20
September .....	0	27	24
October .....	0	27	8
November .....	39	43	12
December .....	70	62	11
Total.....	156	1,964	1,516

In 1901 there were 410 deaths from the disease. In 1902, in spite of the fact that the bad conditions under the previous administration had been allowed to continue so long, and in spite of the fact that 258 more cases were reported during the first three months of the year than during the corresponding months of 1901, nevertheless the number of deaths was only 310.

*Medical inspection of schools.*—One of the most interesting and inspiring departments of work carried on by the New York Board of Health under the present administration is its medical inspection of all the public, parochial, and industrial schools in the city. This work was first begun in a tentative way in 1896, following the experience of the health authorities in Boston and several other large cities, but it has since been steadily extended



and perfected, until at the present time New York may justly lay claim to having perhaps the most efficient system of any large city throughout the whole country.

It was in 1895 that one of New York's medical inspectors was detailed to make a special investigation of this subject, and his report showed such significant and almost startling results that the Board of Health had no trouble in getting the city authorities to grant it a special appropriation to establish a regular corps of school inspectors.<sup>1</sup> The doctor who made this far-reaching and important investigation cited a large number of instances which seemed to show conclusively that the public schools were among the most fruitful sources for the spread of contagious diseases. He found one little fellow, in the midst of desquamating after scarlet fever, who was innocently peeling off large portions of his skin and passing them to his school companions as a subject of great interest! In another instance the spread of trachoma—a very prevalent and contagious eye disease—was traced directly to the passing of a handkerchief by a schoolgirl who was affected with the disease, along a whole row of pupils. Again, in the large girls' school (Public School No. 12), where there had been a large number of diphtheria cases, the spread of the disease was immediately checked by the disinfection of the building and a careful inspection of the pupils.

But under the original system the school inspection, as first practiced in New York, only those children suspected by the teachers of having a contagious disease were brought before the doctors. The result was that the health of the school depended more upon the teachers, who possessed no medical knowledge, than on the judgment of the Board of Health inspectors. And the whole system was so poorly organized and developed, and the department exercised so little control over the doctors, that many of the latter failed to visit their schools regularly every day.

It therefore remained for the present administration to perfect and extend the whole method of school inspection. This was

<sup>1</sup>See special report of Dr. George S. Lynde, *Report of Board of Health for 1896*, pp. 359-63; cf. also pp. 56, 57.

done in the autumn of 1903, largely under the direction of Dr. Walter Bensil, then assistant chief medical inspector, and with most gratifying results. As at present organized, the whole city is divided into school districts, with a medical inspector in each district, under the charge of a district superintendent.<sup>2</sup> It is the duty of the latter to oversee the work of his subordinates and keep them up to the mark, and at the same time report to headquarters (*i. e.*, to the assistant chief medical inspector) for consultation and instructions. Each individual school inspector must also send into the assistant chief a daily report of his work at each school, and a weekly summary of the same; and must report to the district superintendent in person once a week, and once a week in person to the assistant chief. Furthermore, each man is assigned a certain number of schools which it is his duty to inspect every day. By this "squad" or district system, first established by Dr. Bensil, much time is saved which was formerly lost by the men having to report more often to the headquarters of the department. At the same time there is more thorough oversight of each man by the district superintendent, and, as a logical result, more thorough work is done. Each man also becomes more familiar with his schools, and with the principals and teachers, and there is a far greater uniformity of method.

The working day of each inspector begins at 9:30 and closes only when he has performed all the work required of him, which is generally at the end of the afternoon session of school days. His daily round of duty is of three kinds:

1. A morning inspection of all the *public* schools to which he has been assigned, before 10 o'clock. Here he is required to examine each child that has been isolated by the teachers as a source of possible contagion, and exclude from school attendance anyone affected with, or showing symptoms of, an infectious or contagious disease. The following affections must be excluded without delay and the patients sent to their homes, *viz.*: measles, diphtheria, scarlet fever, whooping cough, mumps, chicken pox,

<sup>2</sup> During the school year of 1902-3 there were employed in Manhattan and the Bronx six supervising medical inspectors, including one woman doctor, and sixty-eight regular inspectors, including nine females.

and any acute catarrhal affections of the eyes, nose, or throat. In a case of suspected smallpox—a very remote possibility—the patient is kept at the school, isolated in a suitable room, and the Department of Health notified at once. Each pupil excluded from school is furnished with a card on which are noted the name, address, and age of the pupil, the number and situation of the school, and the reason (in plain English) for exclusion. These cards are made out by the inspector and submitted to the principal of the school, or a person whom the principal may designate. The latter will then have a record made, for his or her own convenience, of the name and address of the pupil excluded, and have each card sealed in an envelope and taken home by the pupil, the child being excluded at the next recurring recess. Children afflicted with pediculosis, contagious eye or skin disease, or pulmonary tuberculosis may be allowed to return to their classes, temporarily, if the inspector deems their cases too mild for continued exclusion until cured. In such cases the child is given a card to the school nurse<sup>1</sup> and is treated by her daily at the school.

2. Weekly examination of all children. Once each week the inspector must make a routine inspection of all the class-rooms, examining the eyelids, throat, hair, and skin of each child, individually; and any pupil suspected of suffering from any contagious disease, or affection of the eye, nose, or throat, is sent from the class-room at once for more thorough examination. Cases of pediculosis or contagious eye or skin disease are excluded at once, but told to return at a proper interval for re-examination by the inspector, and may be readmitted when in his judgment the discharge, etc., has ceased under treatment. Whenever any difference of opinion arises between an inspector and a physician not connected with the department concerning the propriety of excluding a case of eye disease, the patient is sent at once to the central office for examination by the oculist of the department. Cases of measles or scarlet fever are reported to the department by telephone. They are then visited by the diagnosticians for the purpose of confirming the diagnosis.

<sup>1</sup> See later as to further duties of the school nurse, p. 642.

Cases of chicken pox are reported by mail, and are visited by the district medical inspector within twenty-four hours, for the purpose of confirming the diagnosis and for necessary treatment. All children excluded from school on account of measles, scarlet fever, chicken pox, smallpox, or diphtheria, are not allowed to resume school attendance until they have received a written certificate from the district medical inspector.

3. Absentee work. Every Saturday morning the school inspectors must visit the houses of all children who have been absent for several days from their respective schools, and report the conditions to the school authorities and to the district medical inspector where necessary.

The inspectors are also required to ascertain from the principals and teachers of their schools the names and addresses of all children said to have contagious diseases in their families, where notification has not been sent to the schools by the Department of Health, and forward such names with their daily reports.

Under the present system the average inspector makes about 4,500 examinations per week, the exact number depending on the size and location of his schools as well as on his own efficiency. His main object—and, indeed, the root principle of all medical school inspection—should be, and is under the present system, to *prevent* contagion rather than to cure disease. This point cannot be emphasized too strongly. The inspector must never interfere with the work of the family physician, but simply hand over each child to him or to a public dispensary or hospital. Any doctor in the service of the department who attempts in any way to use his official position to increase his private practice will be immediately dismissed.

But the results were not yet perfect. During the first two weeks of the school year beginning September 15, 1902, 588 public, parochial, and kindergarten schools were visited, and of the total of 572,717 children examined no less than 13,024 were excluded. This, to be sure, was a most gratifying increase over the previous records of the department; for, under the old system, during the quarter ending June 30, 1902, the inspectors examined only 81,700 pupils, of whom only 4,941 were excluded.

What was to become of the 13,000 children excluded during the first two weeks under the new methods was now the question.

Undoubtedly many of them sought medical advice, as they were told, and therefore remained away from school only a few days. But some also probably wandered the streets because they were afraid to go to the dispensary, or else played truant. The parents, too, did not yet appreciate the value of the new system and often did not understand why their children had been excluded. When the trouble is trachoma, a very contagious eye disease, and one that without treatment may result in blindness, the eye often appears normal to the inexperienced. One woman voiced the sentiment of many when in her wrath she said, pointing to her son's eyes: "He no bad eyes; he good eyes." And so it often happened that the children returned on the day specified on their cards in a worse state than they were when excluded. When asked for dispensary cards, those honest would say they had not been there; those who wanted to avoid trouble would say the card was at home, or none had been given them.

To illustrate: Max was sent out of school with trachoma. At certain intervals he returned, only to be re-excluded. Upon investigation it was found he was not receiving treatment. His parents knew nothing of the matter. Twice a day for over a month he started out with his books, and spent the day on the street.

Harry also was sent home with sore eyes. He enjoyed neither school nor doctors. During the next three months he returned at rare intervals, only to be re-excluded.

Gussie was excluded on September 11 for pediculosis. She returned for examination three or four times during the next three months, but was not readmitted until the second week in December.

These are perhaps extreme cases, but it often happened that a child lost four or five weeks of schooling when it really ought to have been absent not more than that number of days.<sup>1</sup>

In order to remedy these defects as far as possible, and prevent the children from remaining out of school longer than absolutely necessary, the Department of Health, with the co-operation of the Board of Education and Miss Lilian D. Wald,

<sup>1</sup> See an interesting article in *Charities*, April 25, 1903, entitled "What Medical Inspection Means in New York Schools," by LYDIA GARDNER CHACE, of the College Settlement Association.

of the Nurses' Settlement, has established a corps of trained school nurses to work in conjunction with the medical inspectors. At the time of writing there have been appointed twenty-seven of these nurses for the whole city. Many of them are women of the best training, from the Nurses' Settlement or elsewhere, who love their work, and are therefore glad to give their services to the city for a yearly salary of \$900. At present they are under the direction of a supervisory nurse. To her they report once a week, and she in turn reports to the assistant chief medical inspector at department headquarters. Each one is given the care of a definite number of schools, and between them the nurses now cover every day more than one hundred schools. These they visit every morning from 9 A. M. to the close of the school-session at 3 P. M., and during that time treat any cases of contagious eye, throat, or skin disease sent to them by the inspector as too mild to justify exclusion. In the afternoons they visit the homes of all children absent from their respective schools, and, by their tact and free advice to the mothers as to proper treatment, use every means to effect a speedy cure and the early return of the patient to school. During January, 1903, the nurses cared for 13,193 cases in the schools of Manhattan, and visited 540 houses. In February they treated 11,169 cases, and visited 679 homes.<sup>1</sup>

The splendid results of New York's system of medical-school inspection, as organized by Dr. Bensil, are apparent to any layman or physician who will take the trouble to investigate. I made a personal tour with some of the inspectors and nurses, and was truly delighted with what I saw. Of course, for its efficient working the system must have the cordial co-operation of the public-school teachers; but this seems already to have been attained, even in the face of much opposition at first. The tact of the inspectors and the school nurses, and their frank desire, not alone to prevent the spread of contagious diseases, but also to benefit the health of the school children and prevent them from shirking their lessons, have evidently won the hearty approval of

<sup>1</sup> Where there are compulsory education laws, as in New York, both inspectors and nurses may co-operate to great advantage with truant officers.

the school authorities. The parents, too, have at last begun to appreciate the beneficial results of the work, so that few of them now protest against the new system. Indirectly, also, they have been taught many new lessons in the matter of cleanliness and how to care for their little ones. No longer do they come to the Health Department in mobs as they used to do, protesting, like one poor woman, that "every nit don't necessarily mean a louse anyway!" Slowly but surely both parent and child have begun to be ashamed of uncleanness, so that nurses and inspectors assure me that their work is really beginning to tell.

Some idea of the greatly increased efficiency of the present system of "squad" organization and routine inspection of every child in every school, first started by Dr. Bensil in September, 1902, may be obtained by comparing the number of cases of contagious eye diseases excluded during the six months from January 10, 1902, to June, 1902, with the number excluded under the present administration during the six months from September 10, 1902, to March 7, 1903. In the *former* period the number excluded was only 1,925; during the six months of the present system 25,366 cases were excluded. If we also compare the number of parasitic diseases of the head, we find that only 2,733 cases were excluded during the six months from January 10, 1902, to June, 1902, as against 19,288 cases excluded during the same number of months from September 10, 1902, to March 7, 1903. A similar comparison of the number of *true* cases of diphtheria, scarlet fever, measles, chicken pox, etc., compared with the *actual* (whole) number excluded, is also instructive, but the tables must be omitted for lack of space.<sup>1</sup>

But perhaps one of the most practical reforms inaugurated by the present administration in connection with its medical inspection of schools is the new eye hospital established for the free

<sup>1</sup> Since the above was written, the figures for the first week of the school year in 1903 (September 14-18) have been made public. These show that only 439 pupils, as against 4,730, were excluded from school. Of these but 59, as against 3,087, were sent home because they had pediculosis, while only 314 were excluded on account of contagious eye diseases. With practically the same corps of inspectors as last year, this surprising result would appear to be due largely to the greater care used by the parents in preventing contagion, so that it is no longer necessary to exclude any but the worst cases.

treatment of trachoma. In a single week during the early autumn the vigilance of the inspectors had excluded more cases of contagious diseases than during the four years of the preceding administration. From September 12 to December 31, 1902, 12,647 children in Manhattan alone were excluded for contagious eye diseases, 8,994 for pediculosis and 661 for contagious skin diseases. Indeed, by the end of the year the number of eye cases had increased to such an extent that they could not be properly treated by the dispensaries. This large increase in the number of exclusions did not mean, of course, that the diseases themselves had necessarily increased, but for the most part was clearly due to the greater vigilance of the inspectors under the new system.

To meet this growing need, the Board of Health was compelled to do something, and do it quickly. Accordingly, in December, 1902, it requested the Board of Trustees of Bellevue and allied hospitals to fit up two wards, an operating room, and a dispensary, in the old Gouverneur Hospital, for the treatment of trachoma. The marvelous speed with which this request was complied with is a tribute to the energy and efficiency of the hospital authorities. On December 16, or within five days after the order from the Board of Health had been received, the new hospital was opened to the public, fully equipped and furnished with accommodations for thirty bed patients and a staff of eight doctors and six nurses.

Visit this eye hospital on a weekday afternoon, or better, on a Saturday morning when the children are out of school for the day, and you will see a sight not soon to be forgotten. A vast throng of boys and girls, from the little tot with its mother, up to children of twelve or fifteen years of age, may be seen filling the reception room of the dispensary waiting to have their eyes treated. Their numbers prove that the work of the new institution is no myth. And yet, in spite of the hundreds of children in the room, there is perfect order and quiet. A kindly-faced police officer stands by the door and arranges the young people in three long lines. At the head of each line sits a doctor, assisted by a trained nurse, and as each child comes



forward the nurse gently but firmly pulls down the eyelids while the doctor administers the necessary treatment. A few of the little ones are afraid and need much encouragement, but most of them think it a fine chance to be brave boys and girls. The whole thing takes but a minute, and the child then makes room for its companions, the whole line thus moving on out of the door again.

Only the more serious cases of trachoma are operated on, but for this the equipment of the hospital is perfect. Though the operation itself is quite a severe one, the patients are generally confined but twenty-four hours, entering the hospital in the morning, being operated on in the afternoon, and discharged the following morning. Furthermore, up to the end of April, not a single child who had been operated on for trachoma had returned to the hospital. And, although it is too soon as yet to predict with certainty, all signs seem to point to the success of the new operation.

The following table shows the number of old and new cases of trachoma treated at the hospital since its opening in December until the end of March :

Months	Old Cases	New Cases	Operations	Total
December, 1902.....	1,412	976	127	2,515
January, 1903.....	6,272	1,720	487	8,479
February.....	6,445	2,077	495	9,017
March.....	12,683	2,538	230	17,025

The maximum number of cases treated in a single day was 899 on March 16, 1903.

To sum up, then, the leading features of the school inspection work, we should say that these were :

- (1) The prevention, not the cure, of contagious diseases.
- (2) The educative effect on the children and parents, by indirectly teaching them the necessity of cleanliness.
- (3) The "squad" system, and the consequent gain in time and the increasing thoroughness of the inspection.
- (4) The cordial co-operation between the inspectors and the school-teachers.

(5) The trained-nurse system, whereby the children are encouraged to return to school as speedily as possible, or, where suffering from light cases, receive skilled treatment at the schools without the necessity of exclusion, and the help in the care of sick children which the nurses are able to give the parents at the home.

(6) Co-operation, where necessary, between the inspectors and nurses and the truant officers.

(7) The discovery of the prevalence of "trachoma," and the best method of treating this most contagious of all eye diseases.

(8) The new Gouverneur Eye Hospital established by the department for the treatment of trachoma.

(9) The New York system of *paid* medical-school inspectors (\$1,200 per year), which is greatly superior to the voluntary system as practiced in Boston and Philadelphia, because of the greater control and system which the department is thereby enabled to exercise over the school work.

*The "Summer Corps."*—This system of a summer corps of tenement-house doctors was started many years ago, in the late seventies, but has been steadily improved and extended. It consists of a corps of physicians working under the direction of the sanitary superintendent, at a salary of \$100 per month. Many of the men who act as medical inspectors of schools during the school months are employed on the "Summer Corps." They are divided into district squads, covering all the boroughs of Manhattan, the Bronx, and Queens. It is the duty of each doctor to make a house-to-house canvass of all the tenements assigned to him in his district, and to offer free medical advice and treatment to the sick children, each man covering his district as frequently as possible. The "Summer Corps" has generally established free dispensaries at the large city recreation piers, and co-operates as far as possible with numerous private charities, distributing free tickets for the St. John's Guild floating hospitals, etc.

The work has been a perfect Godsend to many and many a poor family in the hot summer months, and several of the physicians have told me that no work in their lives ever seemed to do

more real good or gave them keener satisfaction than this. A doctor soon becomes well known to almost every child in his district, and is hailed by them as a sort of guardian angel sent to give them free excursion tickets and cure them of all manner of diseases.

The most direct results of the work are seen in the statistics of infant mortality, although these are perhaps more largely due to the increasing attention paid to the food and milk supply, and to the improved condition of the streets.

During the year 1892 there were 4,119 deaths of children under five years of age in the old city of New York from diarrhoeal diseases, representing a death-rate of 24.10 per 10,000 of the entire population. During the year 1902 there were 2,936 deaths from diarrhoea under five years of age in the old city of New York (Manhattan and the Bronx), representing a death-rate of 13.72 per 10,000 of the entire population—a decrease in the death-rate of 42 per cent.

This tremendous and striking decrease in the death-rate from diarrhoeal diseases among children, which has been going on during the last twelve years, is of course due to a number of causes besides a mere improvement in the sanitary administration of the city. Of the factors the following are perhaps the most important: a better understanding on the part of the mother or nurse of the necessity of care and cleanliness; a better supply of milk; cleaner streets; Pasteurization of milk through the instrumentality of philanthropic endeavors, and the establishment of small parks. Still, it is very evident that all these causes are closely related to one another, and all may be considered as a part of the growing popular appreciation of better health laws, and, above all, better sanitary administration. For this growing wisdom on the part of the masses of our large city population the education work of a modern board of health is without doubt responsible to a large extent.

The steady decrease in the infant mortality during the summer months of recent years is also remarkable when one considers the high temperature that has generally prevailed. For instance, there were eight days, from June 26 to July 3, 1901,

when the maximum daily temperature never fell below 92°, while on July 1 and 2 it reached 100°. During the week ending July 6, 1901, there were 989 deaths from sunstroke, of which 689 were in Manhattan and the Bronx.

*War against tuberculosis.*—As a communicable disease the treatment of all forms of tuberculosis properly belongs under the direction of the Division of Contagious Diseases. Under the present administration, however, the work was deemed of sufficient scientific importance to be transferred to a special bureau of the department's work under the charge of the assistant director of the diagnosis laboratory (Division of Bacteriology). Special attention was first given to this work by the New York Board of Health in 1895, and the necessity of taking more radical measures of checking its onslaughts is now a recognized duty of the department. For this purpose Dr. Lederle has sought the co-operation of many private authorities, notably the Tuberculosis Committee of the Charity Organization Society, and a vigorous campaign is now being waged to stamp out this dread disease by arousing public sentiment generally, as well as by vigorous health-department measures.

For this work the bureau has a special corps of medical inspectors whose duty it is to investigate all cases of tuberculosis referred to the department by any one of the following agencies: (1) private physicians; (2) hospitals or other institutions, public and private; (3) district health inspectors in the course of their regular work; (4) private citizens or other persons. Each case so reported is at once personally visited by one of the department officials, who reports full particulars to the bureau chief. If the case is already under the care of a private physician, there is no interference on the part of the inspector. Where there is no private physician the inspector may offer advice and treatment, or, at his discretion, refer the case to the Charity Organization Society. In any case it is his duty to see that after the death, recovery, or removal of the patient, his room, clothing, etc., are thoroughly disinfected with formaldehyde by one of the department's regular disinfectors. A full record of the name, address, etc., of every case of tuberculosis reported to the department is kept on file by the bureau.

Recently ( March, 1903) a system of trained nurses to visit tuberculosis patients of the poorer classes was established by the department. These nurses receive \$75 per month, paid from a special fund at the service of the commissioner of health, and it is their duty to visit all patients referred to them by the bureau through the recommendation of the medical inspectors, especially those who are bed-ridden and helpless, and to aid them in every way possible.

This new feature of the system is only on trial at present, but, like the corps of school nurses, promises to be very successful, and will doubtless be extended from time to time, as the funds of the department will allow.

*The prevention of malaria.*—It seems now to be a well-demonstrated fact that the germs of malarial fever can be conveyed into the human system only through the bite of the anopheles mosquito. As these mosquitoes breed commonly in almost every swamp or pool of stagnant water, the proper sanitation and drainage of such sources of infection become of the greatest importance to the good health of the community. So it was that in 1902 the New York Department of Health ordered a general inspection of all land within the city limits, for the purpose of discovering where mosquitoes most commonly bred and the drainage necessary to prevent their continued propagation. Special studies were also carried on during the summer on Long Island and elsewhere, to determine the best means of fighting this particular variety of mosquito. The department sent communications to about seven thousand physicians, asking for their co-operation in this matter, and offering them the facilities of the department's laboratory for their own investigations. In addition to these measures, negotiations were begun with all the railway companies having suburban lines, requesting them to drain and fill in the sunken land along their rights of way. Many orders were also issued compelling certain corporations and private citizens to do such draining and filling in as was thought necessary, and large quantities of petroleum were used to retard, and if possible prevent, the breeding of mosquitoes. Furthermore, Commissioner Lederle proposed to the Department

of Street Cleaning that the clean ashes, which heretofore had been dumped at sea, should be used for the filling of sunken lots without expense to the owners. With this suggestion Dr. Woodbury readily assented. The result has been, not only to prevent the spread of malaria, but to improve the property and save the city the expense of carting and dumping ashes at sea.

### III. THE HOSPITAL SERVICE.

At present the city has four hospitals for the reception and care of cases of contagious diseases, all under the supervision of the sanitary superintendent, as follows:

1. Willard Parker Hospital, which is given up largely to the care of diphtheria patients.
2. Riverside Hospital, at North Brother Island, where all smallpox patients are taken, as well as other cases of contagious diseases.
3. The Kingston Avenue Hospital, in Brooklyn, which is used for the care of Brooklyn's cases.
4. The Reception Hospital, at the foot of East Sixteenth Street, which is provided with isolation wards for the observation of all doubtful cases.

Into one of these hospitals are taken all patients who cannot be properly isolated in their own homes, as well as *all* who are sick with smallpox (Riverside).

When Commissioner Lederle first took charge of the Health Department in January, 1902, he found the hospital and ambulance service of the city totally inadequate. New York's hospitals are away behind those of some foreign cities. For example, London, with a population of 6,408,000, has over 6,500 beds in its contagious-disease hospitals; while New York, with a population of 3,600,000 (June, 1902) has a maximum capacity of 750 beds. In other words, London provides 1 bed to every 1,000 population; New York, 1 bed to approximately every 5,000 population. It was in response, then, to the urgent appeal of the commissioner, made through a body of representative citizens, that the department was last year voted the sum of \$500,000 for repairs and additions to the city's hospital service. It is now

planned to build a hospital for each borough, so as to do away with the necessity of conveying patients across to North Brother Island, with all the dangerous and cruel exposure, and the separation of parent from child, which that must mean. For these extensions plans have already been drawn and a considerable sum of money set aside. Meanwhile, a new \$350,000 scarlet-fever pavilion, to hold from 225 to 250 patients, is to be added to the Willard Parker Hospital at the foot of East Sixteenth Street. This will probably be finished in 1904. Negotiations have been begun for the purchase of land in the borough of the Bronx, whither it is planned to move the research and vaccine laboratories. Eventually, too, it is hoped that further advantage may be taken of the wholesome and beautiful natural surroundings of North Brother Island by erecting there an outdoor camp for consumptives.<sup>1</sup>

Already \$40,000 has been spent in necessary repairs to the buildings on North Brother Island.

New plumbing has been introduced, and general repairs have been made so as to provide better accommodations for both patients and the nursing staff. Plans were made for the erection of a new nurses' home, for larger and better quarters for each employee, for solariums to be added to the existing scarlet-fever pavilions; for a new pier at North Brother Island; and for a new pier at East One Hundred and Thirty-second Street; with a waiting-room and a disinfecting station at the latter. A naphtha launch has been substituted for the open row-boat formerly used at that point. The steamboat "Franklin Edson," which is used in transporting patients between the reception hospital at the foot of East Sixteenth Street and North Brother Island, has been entirely rebuilt. A telephone system has been established on the island, connecting every pavilion with the main switch-board and from there with the long-distance telephone, so that persons at any point can communicate directly with relatives or friends detained on North Brother Island.<sup>2</sup>

Many other improvements have been accomplished or planned. The Kingston Avenue Hospital, in Brooklyn, has been repaired, and land bought in Queens and Richmond for future ambulance and disinfecting stations, as well as for small contagious-disease hospitals. Poor parents are no longer left in doubt as to where

<sup>1</sup> Since this was written such an open-air camp has been opened (May, 1903).

<sup>2</sup> *The Health Department of the City of New York*, Compiled by the City Club, 1902, p. 37.

their sick children have been moved, for the present administration requires that whenever a patient is removed to any of these hospitals there shall be left with the family an official blank giving the location of the hospital and its telephone number. Frequent telegrams from the hospitals are always delivered now, free of charge in the case of poor parents. Formerly the patients or family were often left in entire ignorance of the most serious changes in the condition of their sick children. Since 1902, also, ambulance service has been established in all the boroughs of the city, instead of in Manhattan and Brooklyn only. Finally, the Health Department has notified the commissioner of immigration that as soon as the United States government provides its own hospital the city will cease to burden itself every year with hundreds of alien patients.

No improvements effected by Commissioner Lederle's department are worthy of more earnest commendation than those in the hospital service. Those citizens who were afflicted with contagious diseases during the previous years have already borne witness to the crying need for reform, and no one who has heard the commissioner himself describe the awful conditions that formerly prevailed, and has seen with his own eyes the good work which has been done during the past year, can for one moment doubt the reality of the reform.

#### IV. THE DIVISION OF CHEMISTRY.

Under this division is the chemical laboratory for the analysis of foods, water, and drugs, all under the direction of a chief chemist, and an assistant chief chemist and other employees, chosen by the board from the classified list of the Civil Service Commission. The quarters of the laboratory are somewhat cramped, but it has an excellent equipment, and appears to be doing first-rate work.

Regular weekly analyses of the Croton water are made and published in the general weekly report of the department. The artesian wells, and other sources of water supply in the suburban districts of Richmond and the Bronx, are tested about once a month. A weekly test is also made of the Ridgwood water used in Brooklyn.



All milk of a doubtful quality is sent by the regular milk inspectors or others to the laboratory for analysis, and in the summer time, when "milk raids" are frequent, as many as seven hundred samples of milk are analyzed in a single week. The results are then reported to the Division of Inspections.

The division is also in constant receipt of all kinds of food, candies, etc., sent in by private persons with the request for analysis for poison, etc. Nine of these cases out of ten show nothing wrong, but still the laboratory authorities must always be ready to make the tests for the sake of one case out of a hundred.

The present administration has also undertaken a large number of medical analyses to test the purity of many of the commonest drugs. For this purpose the sanitary inspectors are requested to purchase small samples of certain medicines from apothecary shops in all parts of the city. Some of the results have been astounding, many well-known druggists having been detected selling adulterated medicines. For instance, the department found that spirits of ammonia was being largely sold throughout the city made with wood instead of with the proper grain alcohol. And yet wood alcohol is known to be poisonous, often causing paralysis, or even total blindness. Large quantities of impure phenacetine were also discovered by the chief chemist. Thus of 373 samples purchased in Manhattan and Brooklyn, 315 were found to be adulterated, or composed of a cheap and dangerous substitute called acetanilid.

Dr. Lederle made public the details of this preliminary investigation of impure drugs on January 14, 1903, at the same time announcing that the department would continue its analyses besides prosecuting the guilty druggists. Naturally many of the pharmacists were at once up in arms at this onslaught. Yet too much credit cannot be given the Board of Health for its good work in this direction. The public has everything to gain, and the honest apothecary nothing to lose, by these chemical tests of much-used medicines.

#### V. THE BACTERIOLOGICAL WORK.

New York was the first city in the world to establish a municipal laboratory for bacteriological work. In 1892, several cases

of cholera having been brought to the port, Dr. Herman M. Biggs, who was then pathologist of the Health Department, urged the necessity of bacteriological diagnosis as the only sure test of this disease. Upon the request of the department, therefore, the Board of Estimate and Apportionment made the necessary appropriation for a suitable laboratory, and upon the New York model many similar laboratories have since been established both in this country and abroad.

After some success in the diagnosis of cholera in 1893, the laboratory turned its attention to diphtheria, and the following year established the necessary plant for the production of the antitoxin used by the department. In 1894, also, studies were begun upon the bacteriology of tuberculosis, while in 1895 the treatment of diphtheria in tenement houses and the free distribution of antitoxin was started. Since then the work of the bacteriological laboratory has gone on steadily expanding, until now it is divided between a research laboratory proper, a diagnosis, a vaccine, and an antitoxin laboratory, as well as a large disinfecting plant. The general methods and the results of this bacteriological work, which has now become among the most important carried on by the Health Department, and one upon which it is largely dependent for its efficiency in the prevention and cure of contagious diseases, may best be described under its several different branches.

*The research laboratory.*—This is a well-equipped laboratory for all kinds of research work which the department may wish to undertake. It is devoted to the testing of the vaccine and antitoxin prepared and used by the Board of Health, and to all kinds of research experiments. For this and other demonstrative work a little menagerie of live guinea pigs, rabbits, monkeys, etc., is maintained; and from its studies the laboratory has shown that the virus of smallpox and vaccine cannot be of a bacterial nature. Dr. Park, the director of the laboratory, discovered that a monkey can always be inoculated with smallpox, but never with chicken pox, thus making known to the world the first sure test for a diagnosis of these diseases.

The laboratory has studied tuberculosis cultures obtained from human beings and cattle. It has made progress in methods of disinfection. One

of its staff has devised a machine by which formaldehyde can be generated with great rapidity and cheapness, and these machines have been installed upon the boats and in the ambulance stations of the Health Department. . . . It has discovered that filters separate bacteria from virus, and also separate the vaccine organism.<sup>1</sup>

In this laboratory there is also free treatment for rabies on the Pasteur system. Extensive experiments have been carried on to discover a serum for dysentery, it having been apparently verified that this disease was due to a particular bacillus.

*Diagnosis laboratory.*—This is under the direction of the assistant chief of the division of bacteriology, and is devoted to the hatching and testing of all “cultures” sent into the department, either by its own medical inspectors or by private physicians. Every night all “cultures” are collected by the department from its various “stations” throughout the city and brought to the diagnosis laboratory to be tested. Each culture is then hatched out over night, a microscopic slide made of a sample of its contents, and the presence of contagious or communicable disease germs—or “bugs”—easily detected. The results are at once telephoned to the various doctors who sent in the “cultures,” so that the latter can know at the beginning of their next day’s work the sure result of their diagnosis.

Here a layman will be interested in having pointed out to him under the microscope the differences between the tubercular, the malarial and typhoid-fever, and the diphtheria bacilli. The slide containing each sample is properly marked, and then filed away for a reasonable length of time, so that, should there be any doubt in the future as to the diagnosis, it may be again brought into service. Sometimes several “cultures” must be taken before the result can be detected with absolute certainty; and in a case of doubtful diphtheria, for instance, medical inspectors and private physicians are encouraged to take a number of “cultures.”

*Vaccine laboratory.*—The department now manufactures all its own vaccine, besides a considerable surplus, which it usually

<sup>1</sup> *The Health Department of the City of New York*, Compiled by the City Club, 1902.

markets. The equipment and product are acknowledged to be of the best.

*Antitoxin laboratory.*—All the antitoxin used by the department is also now manufactured by it under the charge of a skilled chemist and doctor. Last year (1902) the toxin sold to the public (*i. e.*, the surplus not used by the department) amounted to about \$20,000. It is now planned to furnish antitoxin free to all, as is already done in Boston, instead of to poor persons only, at the discretion of the medical inspectors. While, of course, the formula came from Germany, the New York laboratory was one of the first to perfect the manufacture of high-grade antitoxin, and its products are now in demand all over the world.

*The disinfecting plant.*—Here are disinfected all bedding, clothing, etc., taken from the rooms of persons sick with a contagious or infectious disease. The department has its own corps of disinfectors (salary \$900–\$1,050 per annum), and assistant disinfectors (\$750 per annum), besides its own wagons, etc. The plant is equipped with steam and formaldehyde chambers and all modern appliances, and every possible precaution is taken to prevent the spread of the disease. Each case of disinfectant is subjected to a bacteriological test by means of a sensitive card left in the infected room by the disinfecter. This card is then regularly tested for bacteria by the bacteriologist in charge of disinfections, and, if found to contain any germs, there must be a redisinfection.

### III. CONCLUSIONS.

#### I. CHIEF FEATURES OF THE DEPARTMENT'S ORGANIZATION AND WORK.

It may be well in conclusion to summarize some of the most important and strongest features of New York's Department of Health, as at present organized under the Low administration.

1. The centralization of power in the hands of the commissioner who is appointed by and responsible only to the mayor. Thus, while the sanitary and medical work of the department is carried on separately in each borough under the direction of an assistant sanitary superintendent, this latter officer must report regularly to the commissioner, and can hold his appointment

only during the pleasure of the board. Again, the centralization of power has been extended by the present administration through the consolidation of the former Divisions of Food Inspection and Offensive Trades into the one Division of Inspections (*cf.* Table, Vol. IX, p. 463). Furthermore, the board has been relieved of a tremendous and complicated burden by the conferring of all its duties relating to tenement houses upon the new Tenement House Department.<sup>1</sup>

2. Still another strong and important feature of the organization of the New York department is the law providing for a special squad of sanitary police. As this body of men are supported by a special appropriation from the Board of Health, it cannot justly be charged by the Police Department that it is compelled to support officers detailed to perform non-police duties. Too much emphasis can scarcely be laid on the efficiency of the men on the present squad.

3. High character and discipline of the employees. As soon as the present administration came into office, Dr. Lederle reorganized the whole force of the department's employees. One hundred and fifty-seven of these were dismissed, partly because of the deficiency in the appropriation for salaries, but partly also because of their inefficiency. For instance, twenty employees were dismissed under charges of intoxication, wilful neglect of duty, failure to report, and making false reports, while fifteen more resigned under charges. By this reclassification, \$100,000 annually has been saved to the city in salaries alone. Furthermore, all the inspectors are now held really accountable for the sanitary condition of their districts, and when not engaged in routine duties are required to make original inspections. The result of this rigid discipline is seen in certain reforms, such as the thorough cleaning up of Chinatown, and the more rigid inspection of lodging-houses, bath-houses, and slaughter-houses, and certain foods and drinks, notably milk. Finally, mention should be made of the apparent abolition of all political pull in the work of inspection, and the serving of orders, and of the uniform civility of the department's employees, from the com-

<sup>1</sup>*Charter of 1901*, Chap. XIXa.

missioner down. Indeed, one who has come in personal contact with Dr. Lederle must inevitably be impressed with his unfailing courtesy and his willingness to hear all complaints as well as to receive suggestions. To this civility and tact must be ascribed much of his success as a leader of men.

Certain other reforms accomplished the last year are worthy of mention, particularly some of the work of the Division of Contagious Diseases.

4. The new system of vaccinating by squads, and its effective results in stamping out the smallpox epidemic of 1902.

5. The medical inspection, once a week, of every child in all the public, parochial, and industrial schools in the city; also the corps of trained school nurses, to assist the regular inspectors and encourage the children who have been excluded to return to school as soon as possible; and the new eye hospital established by the department for the treatment of cases of trachoma.

6. The work of the "Summer Corps" of physicians in the poorer tenement-house districts, and the splendid results achieved. It should, however, be mentioned in this connection that part of the credit for the steady reduction in the infant mortality during recent years is undoubtedly due to other causes, notably the cleaner streets. Still, the war of the "Summer Corps" is worthy of much praise.

7. The war against tuberculosis in co-operation with private societies and doctors.

8. The reforms in the hospital service.

9. The good work of the chemical laboratory, especially in the detection of impure drugs, and of the bacteriological laboratory in its research work and the manufacture of vaccine and antitoxin.

10. Improved work in the different boroughs, especially Brooklyn. This had been accomplished by the further centralizing of the system, by the transfer of trained men from Manhattan to assist in the reorganization of the other boroughs, and by requiring the assistant sanitary superintendents to report regularly to the commissioner.

11. The building of proper fireproof vaults for the storage

of the department records for the first time in the history of the city, and the better and more substantial binding of these records.

## II. SOME PRESENT NEEDS AND FUTURE POSSIBILITIES.

Allusion has been made to the frightful condition of the contagious-disease hospital on North Brother Island, and of the much-needed reforms already accomplished by the Department of Health under Commissioner Lederle. A word should also be said regarding the further need for improvement in the city's hospitals for contagious and infectious diseases. Chief among these, perhaps, is the pressing demand for a camp or sanatorium for consumptives—something which every large city should provide free of charge to those persons who are afflicted with this lingering disease and who are too poor to afford the luxuries of a private institution. Indeed, the necessity for such a municipal sanatorium is imperative. Every year it is estimated that thirty thousand people are afflicted with consumption in the city of New York, two-thirds of whom are in need of help from sources outside of their own families. Is it right for the municipality to let them go uncared for, when it has been clearly proved that this disease is not hereditary, that it can be detected in the early stages, and, if taken in time, can often be checked or wholly cured? In the opinion of one of our most prominent medical men in the country, the reasons for its continuance are threefold:

First, the people at large do not understand the ways in which the disease is spread and are ignorant of the simple measures for its avoidance; second, many are careless or indifferent to the risks of sanitary uncleanness; third, the facilities for the care of the poor and the friendless who are stricken are utterly inadequate. Thus the larger proportion of the victims of tuberculosis are hopeless in sight of the hope which science holds out to all.<sup>1</sup>

We have seen how the Department of Health, in co-operation with the Charity Organization Society and other private bodies, has sought to remedy the first two causes for the spread of tuberculosis, and how, mainly as a result of their united efforts, the number of deaths in proportion to New York's ever-growing

<sup>1</sup>See *Charities*, March 21, 1903, p. 291.

population has steadily declined within recent years. To provide for the poor and friendless who are already stricken is now the great problem. "Would that I could take some of our philanthropic friends to our densely crowded tenement districts," says Dr. Knopf, in a recent address, "and show them there the sufferings of mind and body of the poor consumptive who must die, not because his disease was incurable, but because there was no place to cure."<sup>1</sup> Yes, that is the situation in a nutshell, so far as the need for a municipal sanatorium is concerned. And to meet it elaborate plans were recently submitted to the New York Board of Health by the Committee on Tuberculosis of the Charity Organization Society, which provided for a large city hospital and open-air tents to cost from \$219,000 to \$530,000. Finally a modified plan was adopted by the department, and a bill introduced in the state legislature authorizing the city to purchase land and establish an open-air camp for consumptives in Orange county, New York. This bill, however, met the usual strong and selfish opposition of the country members of the assembly, and the accomplishment of its worthy object was rendered practically impossible by requiring, in addition to the approval of the State Board of Health and the local board of the locality in which the new hospital might be, the sanction of both the township and county authorities. These last two additional safeguards to private property rights were certainly unnecessary. Furthermore, their general application bids fair to defeat all future plans for the establishment of a consumptive hospital or camp outside the city limits.

By the passage of the amended bill, therefore, all the efforts of those who have been laboring to solve the problem of an outdoor hospital for New York's consumptive poor will be baffled. No wonder that the commissioner of charities could say:

I cannot escape the conclusion that the enactment of this bill, and the consequent inability of the city to provide properly for its consumptives, will result for years to come in more sickness, destitution, suffering, and death among the tenement-house population of this city than it is possible to cal-

<sup>1</sup> Address delivered under the auspices of the Committee on Tuberculosis of the Charity Organization Society, February 9, 1903; cf. *Charities*, March 7, 1903, p. 225.



culate. In my opinion, it is impossible to overstate the seriousness of the situation.

Nothing remains to be done now, apparently, except for the Department of Health to try to perfect its plans for turning part of North Brother Island into a summer sanatorium for consumptive patients, or for the Department of Public Charities to establish a large hospital in the very midst of an unfavorable city environment.<sup>1</sup>

Without any desire to enter into a discussion of the problem of municipal ownership, one is tempted to suggest the need which New York city has for municipal baths and laundries, or even municipal markets. These public utilities are features of many of the European cities; and considering, for instance, the absolute necessity for public bath-houses, in the interests of both health and cleanliness, would it not be easier to keep these in a proper sanitary condition if they were owned and operated by the Health Department itself? It is a well-known fact that many of the better classes of people living in the tenement districts of the lower East Side refuse to make use of the present private bathing establishments because of their great uncleanness. And it has also been demonstrated that these places, as well as the public river baths, are common sources for the spread of trachoma and other contagious eye diseases. Nearly a decade ago the city of Paris established school baths in connection with its elaborate system of medical inspection of school children.<sup>2</sup> But though there are already a few baths attached to some of New York's public schools, and one built and managed by the city, there seems no reason why the number should not be raised, either by the Department of Health or by the Board of Education. To be sure, the more rigid inspection of private baths undertaken by Dr. Lederle's present administration has done much to lessen the risk of contagion, and seems to point to a further extension of municipal regulation, rather than ownership. Still, baths owned and operated by the municipality could be

<sup>1</sup> During the early summer of 1903 both these last-mentioned steps were taken, but they fall far short of the real needs of the city.

<sup>2</sup> SHAW, *Municipal Government in Continental Europe*, p. 121.

even more carefully inspected, and would fill a long-felt want. The municipal baths and laundries of Glasgow<sup>1</sup> have been an inestimable boon to the tenement dwellers of that city, and even if the less efficient civil-service system of New York rendered their financial success more doubtful in this country, they would be of incalculable benefit to the city's poor.

As for municipal markets, the present administration has been so successful in compelling the owners of private markets and abattoirs to put these in first-class sanitary condition that there would seem to be much less need for city ownership and control.

Those who were responsible for the organization and methods of the new Tenement House Department in New York city lay much emphasis on what they consider a superior system for the investigation of citizens' complaints to that practiced by the Department of Health. Says Mr. Lawrence Veiller, the first deputy commissioner of the new department:

In the past, such complaints in the Health Department were given directly to the inspector, who would take the original paper out with him in the field, and have it in his possession when he went to investigate the cause of the complaint at the tenement house. The result was that the housekeeper, the owner, or the janitor, would see it, so that it became the universal practice for landlords to dispossess any tenant who complained to the Health Department of unsanitary conditions. The effect of this was to discourage tenants from complaining when unsanitary conditions existed, and, therefore, resulted in the increase and growth of such conditions.<sup>2</sup>

The Tenement House Department has sought to avoid these alleged defects in the methods of the Board of Health. As soon as a citizen's complaint is received, it is given a serial number, entered in the complaint book of the department, and a transcript of the complaint made in typewriting and handed to the inspector, with the name of the original complainant omitted. This card copy the inspector takes with him to the field, makes his investigation, and writes his report in ink at the time upon the card. Then he returns the card to the office the next day, and if there is cause for the complaint, he so states, and files a violation. The complaint clerks now make out an appropriate

<sup>1</sup> SHAW, *op. cit.*, pp. 108-10.

<sup>2</sup> *Engineering Review*, April, 1898, pp. 2, 3.

order based on the report of the inspector, and a notice is sent to the owner of the tenement requiring him to remedy the conditions complained of. Thus the original "recommendations" of an inspector are not approved or disapproved verbatim, as is the practice in the Health Department, but the wording of the order is made out separately in each case by the complaint clerks.

For this method the Tenement House Department claims the following advantages: (1) The tenants are absolutely protected and able to complain of unsanitary conditions without fear of being dispossessed, simply because there is no handwriting for the housekeeper or agent to identify, even the inspector having no knowledge of the source of the complaint, since he never sees the original paper. (2) Much of the inspector's time is saved, because he does not have to decipher illiterate and indistinct handwriting, but is given a neat typewritten copy in a clear and compact form. (3) There is absolute uniformity in the wording of orders, because these are made out and served only by the department's complaint clerks, the inspector himself not being allowed, as in the Health Department, to make any original suggestions, which might after all be in conflict with the orders sent out by the department.

The writer frankly confesses that, after a careful comparative study of these two methods of investigating citizens' complaints, he feels that undue stress has been laid by Mr. Veiller upon the danger of the owner or agent of the house reading the name of the complainant on the original complaint. Of course, if this did happen in any large number of cases, the natural consequence would be to dispossess the complaining tenant and to discourage the making of all future complaints. But after all, in the majority of cases the complainant does not sign his or her name. And even where the name is known to the inspector, the latter, if he be an honest officer, would have no reason for showing the original complaint to the housekeeper or agent or owner, or anyone else. At least the writer never detected anything of this kind when going around with the inspectors.

Again, the very fact that the tenement-house inspectors are given little discretion, and not permitted to make original sug-

gestions, as in the Department of Health, undoubtedly delays the proper enforcement of orders. The new method also seems to provide a superabundance of red tape, which likewise conduces to delay.

Nevertheless, the new system does probably save much of the inspector's time by giving him a clear copy of the exact nature of the complaint. It also probably does away with a very possible conflict in the wording and serving of orders, and tends toward greater uniformity of method—something which may be of great advantage to the department, if the case is carried into court. Furthermore, it must be remembered that all of the inspectors may not always be either as honest or as efficient as they ought to be, and therefore it is perhaps better not to give them too much power or discretion. It is notorious that under the Tammany régime health inspectors, as well as countless other kinds of city officials, used their office as a means of collecting blackmail from private citizens; and such dangers must be guarded against, even under a reform administration. Besides, Tammany may come into power again at any time, and its opportunities for dishonest dealings, which are especially great in the case of such city departments as those of health and tenements, ought to be curtailed as far as possible.

Still another reason for the new system established by Mr. Veiller in the Tenement House Department was doubtless the inefficiency of many of the present corps of inspectors. Indeed, it is a remarkable and striking fact to an outsider who has had the chance of studying some of the methods and results of the best of New York's departments of government under Mayor Low's administration, to observe the general wail of complaints against the present system and methods of holding competitive examinations. These protests come, too, from men who a year ago were, in many cases at least, ardent civil-service reformers. Most of their objections, to be sure, are concerned with the methods rather than the system of making appointments and promotions in the civil service. They say, and apparently with much reason, that many of the questions asked in the written examinations are utterly unpractical, and that the rating of the

appointees is often worse. More freedom, they urge, should be given to the heads of departments in the selection of employees, and they should be allowed to choose from among the first twenty-five or fifty on the list, rather than from among the first three. For how can you test by written examinations a man's experience, or, even more important, his judgment and tact and ability to handle other men? But some of the objections are made even against the principles of the civil-service reform, and especially as to whether the competitive system should be applied at all in the case of promotions; for in this case it is experience and the ability to lead others which are all-important, and which it is well-nigh impossible fairly to test by a written examination.

It should be stated that fewer complaints have been heard as to the results of the civil-service system from the present administrators of the Health Department than from some of the other city departments. Still, the dissatisfaction is widespread, and certainly worthy of very careful consideration. There is no space here to discuss how far these complaints are justified; nevertheless it is the opinion of the writer that there are grave defects in some of the present methods, if not in the principles, of the competitive system. Most of these are probably due to the inefficiency of the examiners, many of whom are men without any practical experience. If so, they can probably be remedied in time. And certainly it is absolutely essential that there should be some means of impartially testing the general ability of candidates in the making of appointments. The day is past when either the national or the local government in this country can afford to return to the obnoxious spoils system. But it is equally essential that some more practical means be devised for testing a man's experience and executive ability than is the case at the present time in New York city. The examiners must be of a different stamp; and the suggestion that the heads of departments be allowed to select from *all* the candidates on a list who have been able to pass a certain minimum requirement, rather than from among the first three, seems a good one; for, if necessary, that minimum requirement may be raised so as to insure at

least the choosing of those who have sufficient mental ability. Then, too, in the promotion of employees who have already shown a certain grade of intellectual power, why should not the employer be free to pick out those whose character and experience, rather than mere brains, will be of the most benefit to the city? For, after all, can there be any test of a person's honesty and executive ability so sure as the test of actual experience in office?

### III. A MESSAGE OF HOPE FOR MUNICIPAL REFORMS.

Laying aside all further considerations of organization and method, what now are some of the chief lessons to be learned from Dr. Lederle's successful management of New York's Department of Health? What is the message of hope which this feature of Mayor Low's administration brings to the hearts of municipal reformers the country over? For, after all, these are far more important questions to answer than those regarding the details of sanitary science. Without doubt the citizens of New York have during the past eighteen months reaped the benefits of one of the very best administrations, if not *the* best, of their health laws which they have ever known. That much at least we hope this paper has clearly shown. But unless the majority of these citizens appreciate, or can be made to appreciate, what has already been done for them, we can expect little real progress in municipal reform. It is of the very highest importance, then, to the cause of good government throughout the land to point out, not alone the good work which Mayor Low has accomplished through his Department of Health, but also the reasons for his success. For only thus, by a campaign of gradual education, can we hope to raise the masses of our city population to the point where they can understand why it is better to vote for honest, intelligent officials, rather than for dishonest, ignorant, and selfish ones.

Now, the foremost lesson to be learned from New York's recent experience is that, after all, training and education, combined with rugged honesty, fearless courage, and an unselfish love of service, are bound to count. In the end, the men who possess these qualities are sure to forge ahead of those who have

them not. And it is very evident that Commissioner Lederle and his assistants have succeeded, first of all because of sheer ability and careful training for their life work. It was their brains and their education which helped them to solve problems never before solved—which taught them how to reorganize the Department of Health in the interests of concentrated responsibility and the greatest possible working efficiency; which showed them the best way of stamping out smallpox and protecting school children from contagious diseases; which taught them the necessity of cleaning up “Chinatown,” and of providing proper hospital accommodations for the sick; and, finally, many other useful lessons.

In the second place—and this point should be emphasized even more strongly than the first—Commissioner Lederle has succeeded because of his inspiring qualities as a leader of other men. His very honesty and courage, his sympathy and longing to serve his fellow-men—all these qualities have helped him even more than mere brains and intellectual training. Call it the contagion of heroism, if you please. We have all known it at some time during our lives; we have all tasted of that wondrous inspiration which brave and unselfish men or women carry with them wherever they go. It is the same thing which the school-boy looks up to in his leader, and which causes the smallest street urchins to gather around some companion who seems almost to have been born with the qualities of a hero and a leader of men. The writer has seen it all around him during his residence in New York city, and it has filled him with new hope. He has seen it in the fire chief, the leader of a battalion of a hundred men, who would gladly give his life to the service of the city simply because it was his duty. He has known it in the police officer, the man who is brought into daily contact with the blackest crime and misery, who yet clings to his ideals and his natural love of honesty and purity. Everywhere around us there is this contagion of heroism which must inevitably spread from the leader to his followers. And where, therefore, we see it in New York’s present commissioner of health, we should gladly hail it as a welcome sign of civic betterment; for anyone who

has come into personal contact with Dr. Lederle, and who has seen his tact and courtesy, his honesty and eagerness unselfishly to serve his city, will see why it is that many of these same qualities have been unconsciously imitated by his assistants, and indeed by the rank and file in the whole department. He will then understand, too, what is meant by the contagion of heroism, the inspiration of leadership, which has enabled Dr. Woodbury as the commissioner of street cleaning, and Mr. Folks as the head of the Department of Public Charities, and General Greene as the commissioner of police, to do some really splendid work with practically the same men who two years ago were debauched with Tammany corruption. For the average man, after all, likes to see honesty and courage and unselfishness, and will gladly respond to their inspiration when he knows that there is no favoritism, and that each one will receive his proper reward.

These, then, are the chief reasons for Dr. Lederle's success—his training and education, and his inspiring example as a leader. And this, too, is the chief lesson to be learned from his administration, that, in the end, intellectual ability, when combined with honesty and courage and an unselfish love of service, is bound to triumph over weakness, dishonesty, and greed. A very simple lesson, to be sure, but one which cannot be over-emphasized; for when properly appreciated it should bring fresh courage to every sane municipal reformer, and to all who believe in the ultimate triumph of right over wrong.

But, after all, do the masses of New York's citizens really understand what has been done for them, and do they appreciate good sanitary administration when they see it? In answer, it must be said again that of course we must not expect steady progress or sudden and complete reform. The end desired can be brought about only very gradually, by a long process of popular education, and by ceaseless agitation. Yet there can be little doubt that, even if Tammany and Tammany methods come back to power again next November, there will have been a marked progress all along the line, and that conditions will never become as bad as they were before.

The outlook is especially hopeful so far as sanitary reform is



concerned. No branch of social progress during the past hundred years has a brighter history than this, and none offers so little theoretical opposition or so little prejudice; for in no other field of administration is it easier to prove by actual experience that good health pays better than bad health, and therefore that taxation in the interests of sanitary reform is something which benefits without burdening the majority. The lowest wage-earner is already beginning to associate his health with his capital. Few there are who do not wish for a higher standard of life, and few there are who do not begin to see that healthful tenements and workshops, clean streets and playgrounds, wholesome food and drink, and adequate hospital accommodations and public baths, are helping them to raise that standard with a minimum amount of self-sacrifice. Already the New York Department of Health, under Mayor Low's administration, is helping in this campaign of popular education, and by its model sanitary service is indirectly, but slowly and surely, teaching the people the value of pure food and drink, how to care for their little children in hot weather, how to separate the sick from the well, and a host of other things which profoundly affect the death-rate of a city. For, after all, mere laws by themselves can do little. And the enormous sanitary improvements of the past century have been due, not alone to increased scientific training and better governmental machinery, but even more to that indirect diffusion of knowledge among the people which a modern department of health must inevitably help to exert.

The passing of the Ashbridge administration in Philadelphia, and the placing of a well-trained physician at the head of the new Department of Health and Charities in that city, augur well for the future. And even if Tammany Hall does return to power in New York next autumn, the lessons which have been taught by Commissioner Lederle and some of his fellow-workers will not have been wholly lost. The masses who dwell in the great metropolis have certainly learned more than they ever knew before about the value of good health administration, and they will no more permit the future rulers of the city to neglect

the proper medical inspection of the public schools, for instance, than they allowed the last Tammany officials to forget all the good lessons which Colonel Waring had taught them about the value of clean streets. Everywhere, then, there is hope. And the experience of New York during the last year and a half ought to fill those who are elsewhere fighting for good city government with new courage. Meanwhile, if the tide does turn for a little while, the new spirit of social service and healthy civic pride will continue to enforce the results of modern science, and the standards of public opinion will slowly but surely rise. Thus in the end will the majority appreciate the higher ideals which are constantly set before them, and the faith and courage of their leaders will be deepened that they may be prepared to fight the more valiantly and effectively in the future.

FRANCIS R. COPE, JR.

DIMOCK, PA.